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State of West Virginia
Department of Environmental Protection - Office of Oil and Gas
Well Operator's Report of Well Work

API 47- 017 - 06498 County Doddridge District Grant
Quad Smithburg 7.5' Pad Name Misery Pad Field/Pool Name ----------
Farm name Spencer, Denzil C. et al Well Number Deano Unit 2H
Operator (as registered with the OOG) Antero Resources Corporation
Address 1615 Wynkoop Street City Denver State CO Zip 80202

As Drilled location NAD 83/UTM Attach an as-drilled plat, profile view, and deviation survey
Top hole Northing 4,356,827m Easting 521,640m
Landing Point of Curve Northing 4,356,547.95m Easting 521,192.14m
Bottom Hole Northing 4,354,296m Easting 522,101m

Elevation (ft) 1,001' GL Type of Well ■New □ Existing Type of Report □Interim ■Final

Permit Type □ Deviated □ Horizontal ■ Horizontal 6A □ Vertical Depth Type □ Deep ■ Shallow

Type of Operation □ Convert □ Deepen ■ Drill □ Plug Back □ Redrilling □ Rework ■ Stimulate

Well Type □ Brine Disposal □ CBM ■ Gas ■ Oil □ Secondary Recovery □ Solution Mining □ Storage □ Other _____

Type of Completion ■ Single □ Multiple Fluids Produced □ Brine ■Gas □ NGL ■ Oil □ Other _____
Drilled with □ Cable ■ Rotary

Drilling Media Surface hole ■ Air □ Mud □Fresh Water Intermediate hole ■ Air □ Mud □ Fresh Water □ Brine
Production hole □ Air ■ Mud □ Fresh Water □ Brine

Mud Type(s) and Additive(s)
Air- Foam & 4% KCL
Mud- Polymer

Date permit issued 05/29/2014 Date drilling commenced 06/20/2014 Date drilling ceased 10/19/2014
Date completion activities began 10/28/2014 Date completion activities ceased 03/09/2015
Verbal plugging (Y/N) N/A Date permission granted N/A Granted by N/A

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Please note: Operator is required to submit a plugging application within 5 days of verbal permission to plug

Freshwater depth(s) ft 475' Open mine(s) (Y/N) depths No
Salt water depth(s) ft 1,477'; 1,675' Void(s) encountered (Y/N) depths None
Coal depth(s) ft None Identified Cavern(s) encountered (Y/N) depths None
Is coal being mined in area (Y/N) No

Reviewed by:
JK
10/23/2015

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API 47- 017 - 06498 Farm name Spencer, Denzil C. et al Well number Deano Unit 2H

CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	Basket Depth(s)	Did cement circulate (Y/ N) * Provide details below*
Conductor	24"	20"	40'	New	94#; H-40	N/A	Yes
Surface	17 1/2"	13 3/8"	562'	New	54#; J-55	N/A	Yes
Coal							
Intermediate 1	12 1/4"	9 5/8"	2,543'	New	36#; J-55	N/A	Yes
Intermediate 2							
Intermediate 3							
Production	8 3/4" & 8 1/2"	5 1/2"	14,452'	New	23#; P-110	N/A	Yes
Tubing		2 3/8"	7,220'		4.7#; N-80	N/A	
Packer type and depth set		N/A					

Comment Details

CEMENT DATA	Class/Type of Cement	Number of Sacks	Slurry wt (ppg)	Yield (ft ^{3}/sks)	Volume (ft^3)	Cement Top (MD)	WOC (hrs)
Conductor	Class A	196 sx	15.6	1.18	38	0'	8 Hrs.
Surface	Class A	670 sx	15.6	1.18	390	0'	8 Hrs.
Coal							
Intermediate 1	Class A	928 sx	15.6	1.18	796	0'	8 Hrs.
Intermediate 2							
Intermediate 3							
Production	Class H	937 sx (Lead); 1,377 sx (Tail)	13.5 (Lead); 15.2 (Tail)	1.44 (Lead); 1.78 (Tail)	2,843	~500' into Intermediate Casing	8 Hrs.
Tubing							

Drillers TD (ft) 15,398' MD; 6,944' TVD (BHL); 6968' TVD (Deepest Point Drilled) Loggers TD (ft) 15,042'

Deepest formation penetrated Marcellus Plug back to (ft) N/A

Plug back procedure N/A

Kick off depth (ft) 6,148'

Check all wireline logs run ** □ caliper □ density □ deviated/directional □ induction □ neutron □ resistivity □ gamma ray □ temperature □sonic

**This is a subsequent well. Antero only runs wireline logs on one well on a multi-well pad (Anne Unit 2H, API #47-017-06374). Please reference the wireline logs submitted with Form WR-35 for the Anne Unit 2H. A Cement Bond Log has been included with this submittal.

Well cored □ Yes ■ No Conventional Sidewall Were cuttings collected □ Yes ■ No

DESCRIBE THE CENTRALIZER PLACEMENT USED FOR EACH CASING STRING

Conductor- 0

Surface- 1 above guide shoe, 1 above insert float, 1 every 4th joint to surface

Intermediate- 1 above float joint, 1 above float collar, 1 every 4th joint to surface

Production- 1 above float joint, 1 below float collar, 1 every 3rd joint to top of cement

WAS WELL COMPLETED AS SHOT HOLE □ Yes ■ No DETAILS

WAS WELL COMPLETED OPEN HOLE? □ Yes ■ No DETAILS

WERE TRACERS USED □ Yes ■ No TYPE OF TRACER(S) USED

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API 47- 017 - 06498 Farm name Spencer, Denzil C. et al Well number Deano Unit 2H

PERFORATION RECORD

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
		* PLEASE SEE ATTACHED EXHIBIT 1			

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
		* PLEASE SEE ATTACHED EXHIBIT 2						

Please insert additional pages as applicable.

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PRODUCING FORMATION(S)	DEPTHS		
Marcellus	6,722' (top) TVD	7,232' (top) MD	

Please insert additional pages as applicable.

GAS TEST ☐ Build up ☐ Drawdown ■ Open Flow OIL TEST ■ Flow ☐ Pump

SHUT-IN PRESSURE Surface 3,550 psi Bottom Hole ---------- psi DURATION OF TEST ---------- hrs

OPEN FLOW	Gas	Oil	NGL	Water	GAS MEASURED BY
	11,121 mcfpd	28 bpd	---------- bpd	1 bpd	☐ Estimated ■ Orifice ☐ Pilot

LITHOLOGY/ FORMATION	TOP DEPTH IN FT NAME TVD	BOTTOM DEPTH IN FT TVD	TOP DEPTH IN FT MD	BOTTOM DEPTH IN FT MD	DESCRIBE ROCK TYPE AND RECORD QUANTITY AND TYPE OF FLUID (FRESHWATER, BRINE, OIL, GAS, H_2S, ETC)
	0		0		

*** PLEASE SEE ATTACHED EXHIBIT 3**

Please insert additional pages as applicable.

Drilling Contractor Precision Drilling Company, LP
Address 2640 Reach Road City Williamsport State PA Zip 17701

Logging Company STRC
Address 1650 Good Hope Pike City Clarksburg State WV Zip 26301

Cementing Company Allied Oil & Gas Services, LLC
Address 1036 East Main Street City Bridgeport State WV Zip 26330

Stimulating Company Nabors Completion & Production Services, Co.
Address 1650 Hackers Creek City Jane Lew State WV Zip 26378

Please insert additional pages as applicable.

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Completed by Megan Darling Telephone 303-357-7230
Signature Megan C. Darling Title Permitting Agent Date 08/21/2015

Submittal of Hydraulic Fracturing Chemical Disclosure Information Attach copy of FRACFOCUS Registry

10/23/2015

API 47-017-06498 Farm Name Spencer, Denzil C. et al Well Number Deano Unit 2H					
EXHIBIT 1					
Stage No.	Perforation Date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formations
1	28-Oct-14	15,208	15,375	60	Marcellus
2	30-Dec-14	15,009	15,177	60	Marcellus
3	30-Dec-14	14,811	14,978	60	Marcellus
4	30-Dec-14	14,612	14,780	60	Marcellus
5	31-Dec-14	14,414	14,581	60	Marcellus
6	31-Dec-14	14,215	14,383	60	Marcellus
7	31-Dec-14	14,017	14,184	60	Marcellus
8	1-Jan-15	13,819	13,986	60	Marcellus
9	1-Jan-15	13,620	13,788	60	Marcellus
10	12-Jan-15	13,422	13,589	60	Marcellus
11	13-Jan-15	13,223	13,391	60	Marcellus
12	13-Jan-15	13,025	13,192	60	Marcellus
13	13-Jan-15	12,826	12,994	60	Marcellus
14	14-Jan-15	12,628	12,795	60	Marcellus
15	15-Jan-15	12,429	12,597	60	Marcellus
16	16-Jan-15	12,231	12,398	60	Marcellus
17	16-Jan-15	12,033	12,200	60	Marcellus
18	16-Jan-15	11,834	12,001	60	Marcellus
19	16-Jan-15	11,636	11,803	60	Marcellus
20	17-Jan-15	11,437	11,605	60	Marcellus
21	17-Jan-15	11,239	11,406	60	Marcellus
22	17-Jan-15	11,040	11,208	60	Marcellus
23	17-Jan-15	10,842	11,009	60	Marcellus
24	18-Jan-15	10,643	10,811	60	Marcellus
25	18-Jan-15	10,445	10,612	60	Marcellus
26	19-Jan-15	10,246	10,414	60	Marcellus
27	19-Jan-15	10,048	10,215	60	Marcellus
28	19-Jan-15	9,850	10,017	60	Marcellus
29	20-Jan-15	9,651	9,818	60	Marcellus
30	20-Jan-15	9,453	9,620	60	Marcellus
31	20-Jan-15	9,254	9,422	60	Marcellus
32	20-Jan-15	9,056	9,223	60	Marcellus
33	20-Jan-15	8,857	9,025	60	Marcellus
34	21-Jan-15	8,659	8,826	60	Marcellus
35	22-Jan-15	8,460	8,628	60	Marcellus
36	22-Jan-15	8,262	8,429	60	Marcellus
37	22-Jan-15	8,064	8,231	60	Marcellus
38	23-Jan-15	7,865	8,032	60	Marcellus
39	23-Jan-15	7,667	7,834	60	Marcellus
40	23-Jan-15	7,468	7,636	60	Marcellus
41	23-Jan-15	7,270	7,437	60	Marcellus

API 47-017-06498 Farm Name Spencer, Denzil C. et al Well Number Deano Unit 2H

EXHIBIT 2

Stage No.	Stimulations Date	Avg Pump Rate	Avg Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/ other (units)
1	29-Dec-14	63.4	7,040	5,347	4,353	244,000	6,628	N/A
2	30-Dec-14	62.9	7,258	5,962	5,119	244,600	6,648	N/A
3	30-Dec-14	62.3	7,326	5,839	5,304	201,100	6,909	N/A
4	30-Dec-14	63.5	7,363	6,064	4,006	207,200	7,084	N/A
5	31-Dec-14	61.7	7,444	6,270	5,348	240,600	6,626	N/A
6	31-Dec-14	63.4	7,288	5,866	4,608	243,500	6,669	N/A
7	31-Dec-14	61.9	7,670	6,340	5,014	149,500	6,818	N/A
8	1-Jan-15	62.9	7,156	6,152	5,289	239,000	6,479	N/A
9	1-Jan-15	63.4	7,099	6,220	5,577	243,800	6,438	N/A
10	12-Jan-15	63.3	7,432	6,529	5,050	188,100	5,806	N/A
11	13-Jan-15	62.2	7,584	6,701	5,531	158,800	5,346	N/A
12	13-Jan-15	64.9	7,409	5,854	5,478	246,100	6,499	N/A
13	13-Jan-15	63.5	7,535	5,775	5,469	213,800	6,961	N/A
14	14-Jan-15	65.2	7,866	6,283	5,483	142,400	6,663	N/A
15	15-Jan-15	64.8	7,468	5,757	5,273	243,000	6,320	N/A
16	16-Jan-15	65.2	6,781	5,362	5,208	246,500	6,366	N/A
17	16-Jan-15	65.1	6,778	5,851	4,994	250,900	6,340	N/A
18	16-Jan-15	64.2	6,875	5,531	5,215	240,600	6,221	N/A
19	16-Jan-15	65.9	6,731	5,793	5,457	244,700	6,286	N/A
20	17-Jan-15	65.0	6,505	5,265	5,104	243,900	6,289	N/A
21	17-Jan-15	62.7	6,534	5,507	4,602	247,800	6,329	N/A
22	17-Jan-15	63.7	7,086	5,451	5,218	247,500	6,285	N/A
23	17-Jan-15	66.0	6,404	5,537	5,048	245,200	6,257	N/A
24	18-Jan-15	64.7	6,365	5,234	5,301	223,800	6,720	N/A
25	18-Jan-15	67.0	6,583	5,627	5,107	242,700	6,243	N/A
26	19-Jan-15	64.2	6,474	5,479	5,151	246,400	6,222	N/A
27	19-Jan-15	67.0	6,574	5,662	4,709	244,000	6,298	N/A
28	19-Jan-15	65.0	6,287	5,171	5,149	243,900	6,226	N/A
29	20-Jan-15	65.7	6,328	5,054	5,168	245,100	6,103	N/A
30	20-Jan-15	70.7	6,263	5,446	4,759	245,900	6,160	N/A
31	20-Jan-15	62.9	6,284	5,165	5,088	243,700	6,050	N/A
32	20-Jan-15	64.2	6,766	5,823	5,020	200,300	6,463	N/A
33	20-Jan-15	64.3	7,275	5,515	4,838	233,500	6,373	N/A
34	21-Jan-15	68.3	6,616	5,491	5,163	248,700	6,058	N/A
35	22-Jan-15	68.6	6,204	5,522	5,277	207,000	6,490	N/A
36	22-Jan-15	65.5	6,322	5,442	5,002	244,900	6,009	N/A
37	22-Jan-15	65.8	6,077	5,248	4,998	247,700	6,007	N/A
38	23-Jan-15	66.0	6,588	5,425	5,161	224,200	6,507	N/A
39	23-Jan-15	65.0	6,243	5,425	4,730	243,900	5,957	N/A
40	23-Jan-15	65.5	6,440	6,382	4,422	240,600	5,902	N/A
41	23-Jan-15	67.5	7,387	6,050	5,083	228,300	5,870	N/A
	AVG=	64.8	6,871	5,717	5,070	9,427,200	259,925	TOTAL

API 47-017-06498 Farm Name Spencer, Denzil C. et al Well Number Deano Unit 2H				
EXHIBIT 3				
LITHOLOGY/ FORMATION	**TOP DEPTH (TVD) From Surface**	**BOTTOM DEPTH (TVD) From Surface**	**TOP DEPTH (MD) From Surface**	**BOTTOM DEPTH (MD) From Surface**
Fresh Water	475'	N/A	475'	N/A
Shale/ Siltstone	0	177	0	177
Shale/ Trace Coal	est. 177	207	est. 177	207
Shale/ Siltstone	est. 207	257	est. 207	257
Shale/ Trace Coal	est. 257	277	est. 257	277
Shale/ Sandstone	est. 277	657	est. 277	657
Limestone/ Siltstone	est. 657	967	est. 657	967
Sandstone	est. 967	987	est. 967	987
Shale/ Limestone/ Siltstone	est. 987	1,117	est. 987	1,117
Siltstone/ Sandstone	est. 1117	1,177	est. 1117	1,177
Shale/ Siltstone	est. 1177	1,237	est. 1177	1,237
Sandstone	est. 1237	1,257	est. 1237	1,257
Shale/ Siltstone	est. 1257	1,397	est. 1257	1,397
Sandstone/ Siltstone	est. 1397	1,542	est. 1397	1,542
Sandstone/ Coal	est. 1542	1,602	est. 1542	1,602
Siltstone/ Shale	est. 1602	1,995	est. 1602	1,995
Big Lime	1,995	2,114	1,995	2,114
Big Injun	2,114	2,545	2,114	2,545
Gantz Sand	2,545	2,689	2,545	2,689
Fifty Foot Sandstone	2,689	2,762	2,689	2,763
Gordon	2,762	3,117	2,763	3,129
Fifth Sandstone	3,117	3,156	3,129	3,170
Bayard	3,156	3,459	3,170	3,495
Warren	3,459	3,846	3,495	3,916
Speechley	3,846	4,091	3,916	4,181
Baltown	4,091	4,569	4,181	4,700
Bradford	4,569	5,047	4,700	5,221
Benson	5,047	5,311	5,221	5,510
Alexander	5,311	5,501	5,510	5,716
Elk	5,501	6,007	5,716	6,272
Rhinestreet	6,007	6,330	6,272	6,634
Sycamore	6,330	6,508	6,634	6,847
Middlesex	6,508	6,641	6,847	7,051
Burkett	6,641	6,669	7,051	7,104
Tully	6,669	6,722	7,104	7,232
Marcellus	6,722	NA	7,232	NA

*Please note Antero determines shallow formation tops based on mud logs that are only run on one well on a multi-well pad. The measured depth (MD) data on subsequent wells may be slightly different due to the well's unique departure.

Antero Resources

Antero Resources
Deano Unit 2H
Doddridge County WV
Northing: 14293306.97
Easting: 1711366.96
As Drilled

WELL DETAILS: Deano Unit 2H
Ground Level: 1001.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.0	0.0	14293306.97	1711366.96	39° 21' 37.945 N	80° 44' 56.345 W	

REFERENCE INFORMATION
Co-ordinate (N/E) Reference: Well Deano Unit 2H, Grid North
Vertical (TVD) Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 1019.0usft
Section (VS) Reference: Slot - (0.0N, 0.0E)
Measured Depth Reference: Precision 522 Deano Unit 2H GL 1001' + 18 @ 1019.0usft
Calculation Method: Minimum Curvature

PROJECT DETAILS: Doddridge County WV
Geodetic System: Universal Transverse Mercator (US Survey Feet)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Zone 17N (84 W to 78 W)
System Datum: Mean Sea Level

Scientific Drilling

Genie Lightfoot
10:28, October 17 2014

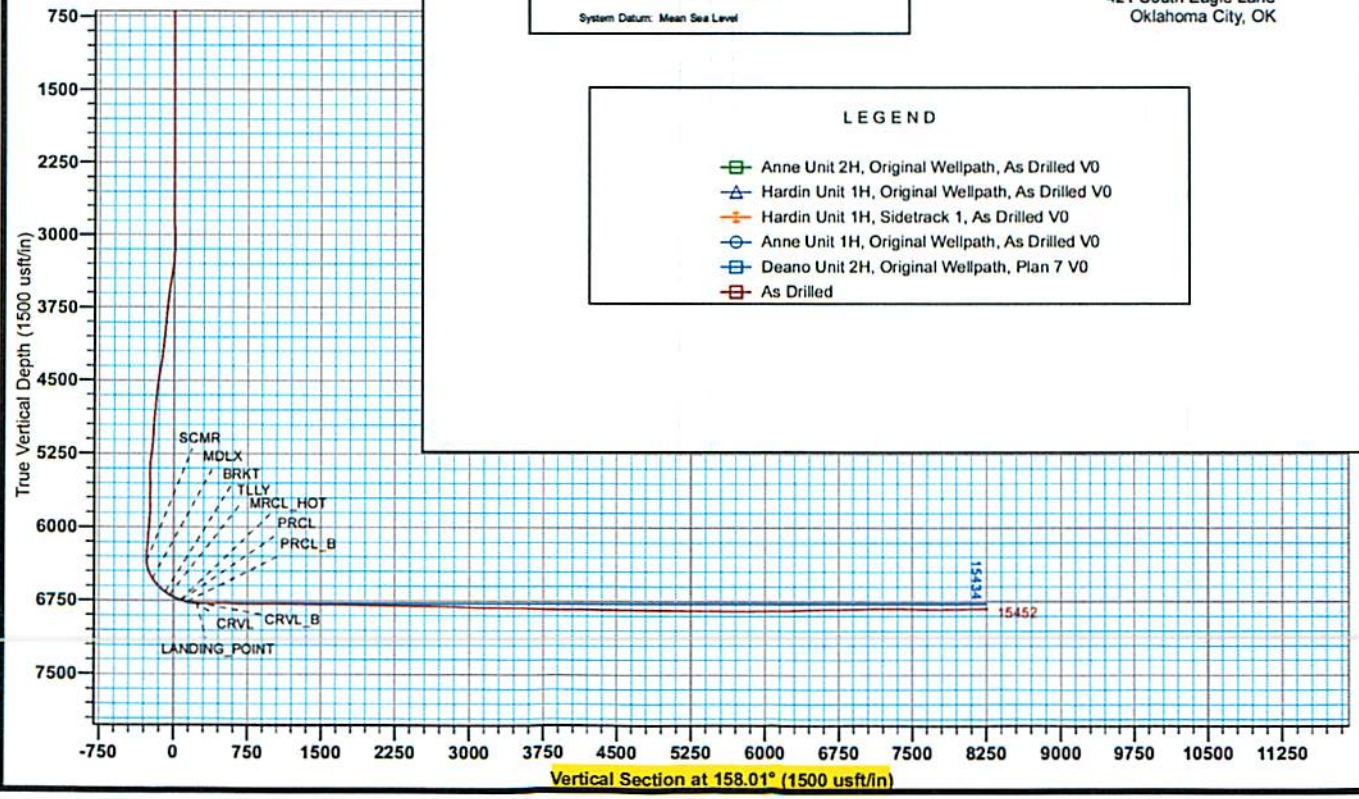
Scientific Drilling
421 South Eagle Lane
Oklahoma City, OK

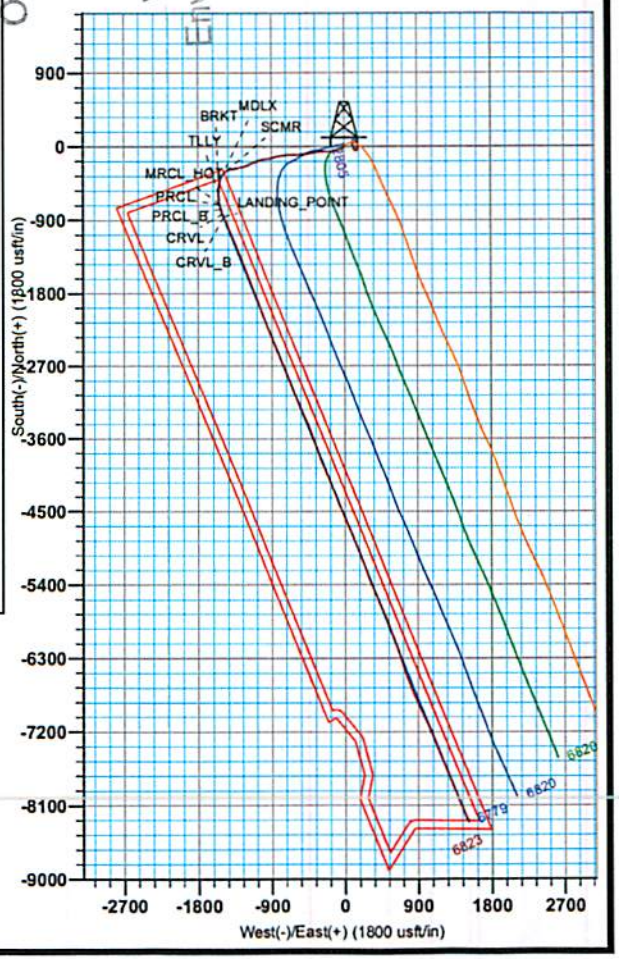
LEGEND
- Anne Unit 2H, Original Wellpath, As Drilled V0
- Hardin Unit 1H, Original Wellpath, As Drilled V0
- Hardin Unit 1H, Sidetrack 1, As Drilled V0
- Anne Unit 1H, Original Wellpath, As Drilled V0
- Deano Unit 2H, Original Wellpath, Plan 7 V0
- As Drilled

To convert Magnetic North to Grid, Subtract 8.67°
To convert True North to Grid, Subtract 0.16°

Azimuths to Grid North
True North: -0.16°
Magnetic North: -8.67°

Magnetic Field
Strength: 52304.5snT
Dip Angle: 66.93°
Date: 5/7/2014
Model: BGGM2014





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Antero Resources

Doddridge County WV
Anne / Hardin Pad
Deano Unit 2H
Original Wellpath

Design: As Drilled

EOW Completion Report

17 October, 2014

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Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Project Doddridge County WV, McClellan District

Map System:	Universal Transverse Mercator (US Survey Fee	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Zone 17N (84 W to 78 W)		

Site Anne / Hardin Pad

Site Position:		**Northing:**	14,293,344.77 usft	**Latitude:**	39° 21' 38.319 N
From:	Map	**Easting:**	1,711,355.33 usft	**Longitude:**	80° 44' 56.491 W
Position Uncertainty:	2.0 usft	**Slot Radius:**	13-3/16"	**Grid Convergence:**	0.16 °

Well Deano Unit 2H

Well Position	**+N/-S**	0.0 usft	**Northing:**	14,293,306.97 usft	**Latitude:**	39° 21' 37.945 N
	+E/-W	0.0 usft	**Easting:**	1,711,366.96 usft	**Longitude:**	80° 44' 56.345 W
Position Uncertainty		2.0 usft	**Wellhead Elevation:**	1,019.0 usft	**Ground Level:**	1,001.0 usft

Wellbore Original Wellpath

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	5/7/2014	-8.51	66.93	52,304

Design As Drilled

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	158.01

Survey Program **Date** 10/17/2014

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
105.0	6,047.0	Survey #7 Final Gyro (Original Wellpath)	SDI Standard Keeper	Scientific Drilling Intl. Standard Wireline Keeper
6,047.0	15,452.0	Survey #6 MWD (Original Wellpath)	SDI MWD	Scientific Drilling Intl. MWD - Standard ver 1.0.1

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00
105.0	0.59	54.00	105.0	0.3	0.4	-0.1	0.56
130.0	0.55	58.63	130.0	0.5	0.6	-0.2	0.24
155.0	0.44	57.89	155.0	0.6	0.8	-0.2	0.44
180.0	0.32	72.08	180.0	0.6	1.0	-0.2	0.61
205.0	0.23	45.16	205.0	0.7	1.1	-0.2	0.62
230.0	0.31	63.79	230.0	0.8	1.2	-0.3	0.47
255.0	0.23	39.26	255.0	0.8	1.3	-0.3	0.56
280.0	0.14	44.17	280.0	0.9	1.3	-0.3	0.37
305.0	0.38	101.77	305.0	0.9	1.4	-0.3	1.31
330.0	0.42	110.36	330.0	0.8	1.6	-0.2	0.29

10/23/2015

17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
355.0	0.24	94.77	355.0	0.8	1.7	-0.1	0.80
380.0	0.13	72.96	380.0	0.8	1.8	-0.1	0.51
405.0	0.25	94.69	405.0	0.8	1.9	-0.1	0.55
430.0	0.27	88.49	430.0	0.8	2.0	0.0	0.14
455.0	0.15	72.19	455.0	0.8	2.1	0.0	0.53
480.0	0.23	103.46	480.0	0.8	2.2	0.0	0.51
505.0	0.08	102.52	505.0	0.8	2.2	0.1	0.60
530.0	0.07	349.37	530.0	0.8	2.3	0.1	0.50
555.0	0.05	295.21	555.0	0.8	2.2	0.1	0.23
580.0	0.09	140.16	580.0	0.8	2.2	0.1	0.55
605.0	0.06	124.12	605.0	0.8	2.3	0.1	0.15
630.0	0.08	155.14	630.0	0.8	2.3	0.1	0.17
655.0	0.16	202.29	655.0	0.7	2.3	0.2	0.48
680.0	0.12	228.60	680.0	0.7	2.2	0.2	0.30
705.0	0.16	219.99	705.0	0.6	2.2	0.2	0.18
730.0	0.18	173.88	730.0	0.6	2.2	0.3	0.54
755.0	0.15	151.67	755.0	0.5	2.2	0.4	0.28
780.0	0.18	156.44	780.0	0.4	2.2	0.4	0.13
805.0	0.12	201.77	805.0	0.4	2.2	0.5	0.51
830.0	0.12	140.16	830.0	0.3	2.2	0.5	0.49
855.0	0.13	162.87	855.0	0.3	2.3	0.6	0.20
880.0	0.10	162.12	880.0	0.2	2.3	0.6	0.12
905.0	0.09	250.28	905.0	0.2	2.3	0.6	0.53
930.0	0.11	167.02	930.0	0.2	2.3	0.7	0.53
955.0	0.07	219.43	955.0	0.2	2.3	0.7	0.35
980.0	0.12	272.02	980.0	0.1	2.2	0.7	0.38
1,005.0	0.21	282.18	1,005.0	0.2	2.2	0.7	0.38
1,030.0	0.14	259.39	1,030.0	0.2	2.1	0.6	0.39
1,055.0	0.12	256.40	1,055.0	0.1	2.0	0.6	0.08
1,080.0	0.14	231.44	1,080.0	0.1	2.0	0.6	0.24
1,105.0	0.25	271.72	1,105.0	0.1	1.9	0.6	0.68
1,130.0	0.18	233.70	1,130.0	0.1	1.8	0.6	0.62
1,155.0	0.26	254.62	1,155.0	0.0	1.7	0.6	0.45
1,180.0	0.18	255.24	1,180.0	0.0	1.6	0.6	0.32
1,205.0	0.25	259.54	1,205.0	0.0	1.5	0.6	0.29
1,230.0	0.25	251.00	1,230.0	0.0	1.4	0.6	0.15
1,255.0	0.24	212.13	1,255.0	-0.1	1.4	0.6	0.65
1,280.0	0.26	220.22	1,280.0	-0.2	1.3	0.6	0.16
1,305.0	0.21	256.40	1,305.0	-0.2	1.2	0.7	0.61
1,330.0	0.23	230.67	1,330.0	-0.3	1.1	0.7	0.40
1,355.0	0.22	249.94	1,355.0	-0.3	1.0	0.7	0.30
1,380.0	0.21	217.80	1,380.0	-0.4	1.0	0.7	0.48
1,405.0	0.18	244.88	1,405.0	-0.4	0.9	0.7	0.38
1,430.0	0.21	262.94	1,430.0	-0.5	0.8	0.7	0.27

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17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
1,455.0	0.17	244.28	1,455.0	-0.5	0.7	0.7	0.29
1,480.0	0.22	271.39	1,480.0	-0.5	0.7	0.7	0.41
1,505.0	0.23	274.45	1,505.0	-0.5	0.6	0.7	0.06
1,530.0	0.19	267.71	1,530.0	-0.5	0.5	0.6	0.19
1,555.0	0.22	271.97	1,555.0	-0.5	0.4	0.6	0.13
1,580.0	0.17	273.66	1,580.0	-0.5	0.3	0.6	0.20
1,605.0	0.22	282.25	1,605.0	-0.5	0.2	0.5	0.23
1,630.0	0.19	265.23	1,630.0	-0.5	0.1	0.5	0.27
1,655.0	0.20	277.43	1,655.0	-0.5	0.0	0.4	0.17
1,680.0	0.11	283.72	1,680.0	-0.4	0.0	0.4	0.37
1,705.0	0.19	282.86	1,705.0	-0.4	-0.1	0.4	0.32
1,730.0	0.13	276.17	1,730.0	-0.4	-0.2	0.3	0.25
1,755.0	0.19	289.14	1,755.0	-0.4	-0.2	0.3	0.28
1,780.0	0.28	263.40	1,780.0	-0.4	-0.3	0.2	0.55
1,805.0	0.30	271.32	1,805.0	-0.4	-0.5	0.2	0.18
1,830.0	0.23	282.15	1,830.0	-0.4	-0.6	0.1	0.34
1,855.0	0.27	250.93	1,855.0	-0.4	-0.7	0.1	0.56
1,880.0	0.31	238.95	1,880.0	-0.4	-0.8	0.1	0.29
1,905.0	0.35	255.31	1,905.0	-0.5	-0.9	0.1	0.41
1,930.0	0.29	255.49	1,930.0	-0.5	-1.1	0.1	0.24
1,955.0	0.38	246.43	1,955.0	-0.6	-1.2	0.1	0.42
1,980.0	0.37	235.17	1,980.0	-0.7	-1.3	0.1	0.30
2,005.0	0.23	247.49	2,005.0	-0.7	-1.4	0.1	0.61
2,030.0	0.29	237.42	2,030.0	-0.8	-1.5	0.2	0.30
2,055.0	0.30	238.15	2,055.0	-0.9	-1.7	0.2	0.04
2,080.0	0.45	257.46	2,080.0	-0.9	-1.8	0.2	0.78
2,105.0	0.52	259.84	2,105.0	-1.0	-2.0	0.1	0.29
2,130.0	0.43	232.79	2,130.0	-1.0	-2.2	0.1	0.96
2,155.0	0.31	239.63	2,155.0	-1.1	-2.3	0.2	0.51
2,180.0	0.33	235.39	2,180.0	-1.2	-2.4	0.2	0.12
2,205.0	0.34	233.98	2,205.0	-1.3	-2.6	0.2	0.05
2,230.0	0.39	258.20	2,230.0	-1.3	-2.7	0.2	0.64
2,255.0	0.36	266.42	2,255.0	-1.4	-2.9	0.2	0.25
2,280.0	0.45	256.64	2,280.0	-1.4	-3.0	0.1	0.45
2,305.0	0.49	248.41	2,305.0	-1.5	-3.2	0.1	0.31
2,330.0	0.43	253.89	2,330.0	-1.5	-3.4	0.1	0.30
2,355.0	0.57	261.72	2,355.0	-1.6	-3.6	0.1	0.62
2,380.0	0.67	252.23	2,380.0	-1.6	-3.9	0.0	0.57
2,405.0	0.73	256.15	2,405.0	-1.7	-4.2	0.0	0.31
2,430.0	0.70	246.23	2,430.0	-1.8	-4.5	0.0	0.51
2,455.0	0.72	246.94	2,455.0	-1.9	-4.8	0.0	0.09
2,480.0	0.79	249.19	2,480.0	-2.1	-5.1	0.0	0.30
2,505.0	1.00	254.09	2,505.0	-2.2	-5.5	0.0	0.89
2,530.0	0.64	246.37	2,530.0	-2.3	-5.8	0.0	1.50
2,555.0	0.82	251.79	2,555.0	-2.4	-6.1	-0.1	0.77

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Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
2,580.0	1.14	263.56	2,580.0	-2.5	-6.5	-0.1	1.51
2,605.0	2.14	267.47	2,604.9	-2.5	-7.2	-0.4	4.02
2,630.0	2.91	269.91	2,629.9	-2.6	-8.3	-0.7	3.11
2,655.0	3.77	269.00	2,654.9	-2.6	-9.8	-1.3	3.45
2,680.0	4.26	265.23	2,679.8	-2.7	-11.5	-1.8	2.23
2,705.0	5.42	257.03	2,704.7	-3.0	-13.6	-2.3	5.39
2,730.0	6.34	250.10	2,729.6	-3.7	-16.1	-2.5	4.64
2,755.0	7.44	244.05	2,754.4	-4.9	-18.8	-2.5	5.27
2,780.0	8.64	240.16	2,779.2	-6.6	-21.9	-2.1	5.27
2,805.0	9.45	238.05	2,803.9	-8.6	-25.3	-1.5	3.50
2,830.0	10.48	235.28	2,828.5	-11.0	-28.9	-0.6	4.54
2,855.0	11.50	233.40	2,853.0	-13.7	-32.7	0.5	4.32
2,880.0	12.00	232.92	2,877.5	-16.8	-36.8	1.8	2.04
2,905.0	12.76	235.20	2,901.9	-19.9	-41.2	3.1	3.61
2,930.0	13.29	238.08	2,926.3	-23.0	-45.9	4.2	3.35
2,955.0	14.06	241.08	2,950.6	-26.0	-51.0	5.0	4.19
2,980.0	14.86	243.36	2,974.8	-28.9	-56.5	5.7	3.93
3,005.0	15.73	245.75	2,998.9	-31.8	-62.4	6.1	4.30
3,030.0	16.15	247.59	3,022.9	-34.5	-68.7	6.2	2.63
3,055.0	16.66	248.48	3,046.9	-37.1	-75.3	6.2	2.27
3,080.0	17.29	249.95	3,070.8	-39.7	-82.1	6.1	3.05
3,105.0	17.89	250.49	3,094.6	-42.3	-89.2	5.8	2.49
3,130.0	17.90	250.55	3,118.4	-44.8	-96.5	5.4	0.08
3,155.0	18.41	252.59	3,142.2	-47.3	-103.9	5.0	3.26
3,180.0	18.79	254.88	3,165.9	-49.5	-111.5	4.2	3.29
3,205.0	19.19	257.78	3,189.5	-51.4	-119.4	3.0	4.10
3,230.0	19.64	259.05	3,213.1	-53.1	-127.5	1.5	2.47
3,255.0	19.99	259.78	3,236.6	-54.7	-135.9	-0.2	1.71
3,280.0	20.64	260.58	3,260.1	-56.1	-144.4	-2.0	2.83
3,305.0	21.05	262.38	3,283.4	-57.5	-153.2	-4.1	3.04
3,330.0	21.47	264.26	3,306.7	-58.5	-162.2	-6.5	3.20
3,355.0	21.80	264.80	3,330.0	-59.4	-171.4	-9.1	1.54
3,380.0	22.18	267.97	3,353.2	-60.0	-180.7	-12.1	4.98
3,405.0	22.41	269.17	3,376.3	-60.2	-190.2	-15.4	2.04
3,430.0	22.84	269.65	3,399.4	-60.3	-199.8	-18.9	1.87
3,455.0	23.42	269.49	3,422.4	-60.4	-209.7	-22.5	2.33
3,480.0	23.61	269.35	3,445.3	-60.5	-219.6	-26.2	0.79
3,505.0	23.74	268.84	3,468.2	-60.6	-229.7	-29.8	0.97
3,530.0	23.61	268.40	3,491.1	-60.9	-239.7	-33.3	0.88
3,555.0	23.39	267.85	3,514.0	-61.2	-249.7	-36.7	1.24
3,580.0	23.20	267.35	3,537.0	-61.6	-259.6	-40.1	1.10
3,605.0	23.23	266.70	3,559.9	-62.1	-269.4	-43.3	1.03
3,630.0	23.62	265.64	3,582.9	-62.8	-279.3	-46.4	2.30
3,655.0	23.64	264.76	3,605.8	-63.6	-289.3	-49.3	1.41

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Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
3,680.0	23.89	264.05	3,628.7	-64.6	-299.3	-52.2	1.52
3,705.0	23.65	263.35	3,651.5	-65.7	-309.3	-54.9	1.48
3,730.0	23.37	262.76	3,674.5	-66.9	-319.2	-57.5	1.46
3,755.0	22.88	262.30	3,697.5	-68.2	-329.0	-59.9	2.09
3,780.0	22.80	261.92	3,720.5	-69.5	-338.6	-62.3	0.67
3,805.0	22.79	261.91	3,743.5	-70.9	-348.2	-64.6	0.04
3,830.0	22.95	262.00	3,766.6	-72.3	-357.8	-67.0	0.66
3,855.0	23.13	262.09	3,789.6	-73.6	-367.5	-69.3	0.73
3,880.0	23.04	261.84	3,812.6	-75.0	-377.2	-71.7	0.53
3,905.0	22.95	261.59	3,835.6	-76.4	-386.9	-74.0	0.53
3,930.0	22.62	261.27	3,858.6	-77.8	-396.4	-76.3	1.41
3,955.0	22.16	260.61	3,881.8	-79.3	-405.8	-78.4	2.10
3,980.0	21.70	260.14	3,904.9	-80.9	-415.0	-80.4	1.97
4,005.0	21.64	260.11	3,928.2	-82.5	-424.1	-82.3	0.24
4,030.0	21.65	260.13	3,951.4	-84.1	-433.2	-84.3	0.05
4,055.0	22.11	260.34	3,974.6	-85.6	-442.4	-86.2	1.87
4,080.0	22.34	261.23	3,997.8	-87.2	-451.7	-88.3	1.63
4,105.0	22.48	261.89	4,020.9	-88.5	-461.2	-90.6	1.15
4,130.0	22.71	262.24	4,044.0	-89.9	-470.7	-92.9	1.07
4,155.0	22.48	262.32	4,067.0	-91.2	-480.2	-95.3	0.93
4,180.0	22.55	262.65	4,090.1	-92.4	-489.7	-97.7	0.58
4,205.0	22.51	264.64	4,113.2	-93.5	-499.2	-100.2	3.05
4,230.0	22.62	265.13	4,136.3	-94.3	-508.8	-103.0	0.87
4,255.0	22.90	265.26	4,159.4	-95.1	-518.4	-105.9	1.14
4,280.0	22.92	264.95	4,182.4	-96.0	-528.1	-108.7	0.49
4,305.0	23.30	264.54	4,205.4	-96.9	-537.9	-111.6	1.65
4,330.0	23.56	264.34	4,228.3	-97.8	-547.8	-114.4	1.09
4,355.0	23.88	264.34	4,251.2	-98.8	-557.8	-117.2	1.28
4,380.0	23.76	264.90	4,274.1	-99.8	-567.8	-120.1	1.02
4,405.0	23.62	265.76	4,297.0	-100.6	-577.8	-123.1	1.49
4,430.0	23.72	267.48	4,319.9	-101.2	-587.8	-126.3	2.79
4,455.0	23.45	269.64	4,342.8	-101.4	-597.8	-129.8	3.62
4,480.0	23.53	271.44	4,365.7	-101.3	-607.8	-133.6	2.89
4,505.0	23.16	271.81	4,388.7	-101.1	-617.7	-137.6	1.59
4,530.0	22.99	271.51	4,411.7	-100.8	-627.5	-141.5	0.83
4,555.0	22.86	271.29	4,434.7	-100.5	-637.2	-145.4	0.62
4,580.0	23.07	271.09	4,457.7	-100.3	-647.0	-149.2	0.90
4,605.0	23.15	271.20	4,480.7	-100.1	-656.8	-153.1	0.36
4,630.0	23.07	270.48	4,503.7	-100.0	-666.6	-156.9	1.17
4,655.0	22.30	269.46	4,526.8	-100.0	-676.3	-160.5	3.46
4,680.0	21.68	268.32	4,549.9	-100.2	-685.6	-163.8	3.01
4,705.0	21.09	266.47	4,573.2	-100.6	-694.7	-166.9	3.58
4,730.0	20.67	264.25	4,596.6	-101.3	-703.6	-169.5	3.58
4,755.0	20.32	262.43	4,620.0	-102.3	-712.3	-171.8	2.91

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Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
4,780.0	20.51	260.26	4,643.4	-103.6	-720.9	-173.8	3.12
4,805.0	19.99	259.57	4,666.9	-105.2	-729.4	-175.6	2.29
4,830.0	20.22	260.24	4,690.4	-106.7	-737.9	-177.4	1.30
4,855.0	20.57	260.50	4,713.8	-108.1	-746.5	-179.3	1.45
4,880.0	20.78	261.37	4,737.2	-109.5	-755.2	-181.2	1.49
4,905.0	21.28	260.94	4,760.5	-110.9	-764.1	-183.3	2.09
4,930.0	21.99	259.79	4,783.8	-112.4	-773.1	-185.2	3.31
4,955.0	22.42	260.73	4,806.9	-114.0	-782.5	-187.3	2.23
4,980.0	23.13	262.76	4,830.0	-115.4	-792.0	-189.6	4.24
5,005.0	23.96	262.98	4,852.9	-116.7	-801.9	-192.1	3.34
5,030.0	24.48	261.98	4,875.7	-118.0	-812.1	-194.7	2.65
5,055.0	25.64	260.38	4,898.3	-119.6	-822.6	-197.1	5.37
5,080.0	26.19	259.23	4,920.8	-121.6	-833.3	-199.3	2.98
5,105.0	26.86	256.10	4,943.2	-123.9	-844.2	-201.2	6.20
5,130.0	27.22	253.66	4,965.4	-126.9	-855.2	-202.5	4.66
5,155.0	27.99	252.20	4,987.6	-130.3	-866.3	-203.5	4.10
5,180.0	27.26	252.36	5,009.7	-133.8	-877.3	-204.4	2.94
5,205.0	25.38	253.61	5,032.2	-137.1	-887.9	-205.4	7.84
5,230.0	25.07	254.00	5,054.8	-140.1	-898.1	-206.4	1.41
5,255.0	24.91	254.54	5,077.4	-142.9	-908.3	-207.6	1.11
5,280.0	24.46	256.66	5,100.1	-145.5	-918.4	-209.0	3.97
5,305.0	23.51	259.63	5,123.0	-147.6	-928.4	-210.7	6.14
5,330.0	22.92	262.28	5,146.0	-149.2	-938.1	-212.9	4.80
5,355.0	23.00	263.19	5,169.0	-150.4	-947.8	-215.4	1.46
5,380.0	22.78	264.10	5,192.0	-151.5	-957.4	-218.0	1.67
5,405.0	22.86	265.69	5,215.1	-152.3	-967.1	-220.9	2.49
5,430.0	23.31	266.02	5,238.1	-153.0	-976.9	-223.9	1.87
5,455.0	23.85	265.79	5,261.0	-153.8	-986.8	-226.9	2.19
5,480.0	24.70	263.94	5,283.8	-154.7	-997.1	-229.9	4.56
5,505.0	25.47	262.15	5,306.4	-156.0	-1,007.6	-232.7	4.32
5,530.0	26.15	259.93	5,328.9	-157.7	-1,018.3	-235.1	4.73
5,555.0	25.15	256.34	5,351.4	-159.9	-1,028.9	-237.0	7.39
5,580.0	24.13	252.91	5,374.2	-162.6	-1,039.0	-238.2	7.02
5,605.0	22.20	250.04	5,397.2	-165.8	-1,048.3	-238.8	8.94
5,630.0	20.52	248.99	5,420.4	-168.9	-1,056.8	-239.1	6.89
5,655.0	20.30	249.44	5,443.9	-172.0	-1,065.0	-239.3	1.08
5,680.0	20.87	247.93	5,467.3	-175.2	-1,073.2	-239.4	3.12
5,705.0	21.62	245.19	5,490.6	-178.8	-1,081.5	-239.1	4.98
5,730.0	22.48	243.49	5,513.7	-182.9	-1,089.9	-238.5	4.28
5,755.0	22.70	244.22	5,536.8	-187.1	-1,098.6	-237.8	1.43
5,780.0	22.69	246.93	5,559.9	-191.1	-1,107.3	-237.4	4.18
5,805.0	22.92	250.02	5,582.9	-194.7	-1,116.3	-237.5	4.88
5,830.0	24.05	251.17	5,605.9	-198.0	-1,125.7	-238.0	4.88
5,855.0	25.76	251.09	5,628.5	-201.4	-1,135.7	-238.5	6.84

17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	Local Co-ordinate Reference:	Well Deano Unit 2H
Project:	Doddridge County WV	TVD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	MD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
5,880.0	27.56	250.29	5,650.9	-205.1	-1,146.3	-239.0	7.34
5,905.0	28.52	248.71	5,672.9	-209.2	-1,157.3	-239.3	4.85
5,930.0	28.19	247.11	5,694.9	-213.7	-1,168.3	-239.3	3.31
5,955.0	26.67	244.50	5,717.1	-218.4	-1,178.8	-238.9	7.75
5,980.0	26.40	244.14	5,739.5	-223.2	-1,188.9	-238.2	1.26
6,005.0	24.76	245.66	5,762.0	-227.8	-1,198.6	-237.6	7.07
6,030.0	23.25	248.86	5,784.9	-231.8	-1,208.0	-237.4	7.97
6,047.0	23.05	250.56	5,800.5	-234.1	-1,214.3	-237.6	4.10
6,089.0	22.97	252.56	5,839.2	-239.3	-1,229.9	-238.7	1.87
6,120.0	22.86	251.75	5,867.7	-243.0	-1,241.3	-239.5	1.08
6,182.0	24.89	259.02	5,924.4	-249.2	-1,265.6	-242.8	5.76
6,198.0	25.15	260.80	5,938.9	-250.4	-1,272.3	-244.2	4.98
6,305.0	22.45	258.38	6,036.8	-258.2	-1,314.7	-252.9	2.68
6,367.0	22.72	258.35	6,094.1	-263.0	-1,338.0	-257.2	0.44
6,398.0	21.69	257.11	6,122.8	-265.4	-1,349.5	-259.2	3.65
6,429.0	22.03	254.79	6,151.5	-268.2	-1,360.7	-260.8	2.99
6,460.0	23.86	257.00	6,180.1	-271.2	-1,372.4	-262.4	6.52
6,490.0	25.55	259.02	6,207.3	-273.8	-1,384.7	-264.6	6.30
6,521.0	28.44	261.72	6,235.0	-276.1	-1,398.5	-267.6	10.12
6,552.0	30.27	258.77	6,262.0	-278.7	-1,413.5	-270.9	7.52
6,583.0	31.08	252.82	6,288.7	-282.6	-1,428.8	-273.0	10.13
6,614.0	30.64	244.87	6,315.3	-288.3	-1,443.6	-273.2	13.22
6,645.0	30.66	240.39	6,341.9	-295.6	-1,457.7	-271.7	7.37
6,652.0	30.63	239.29	6,348.0	-297.4	-1,460.7	-271.2	8.00
SCMR							
6,676.0	30.59	235.52	6,368.6	-303.9	-1,471.0	-269.0	8.00
6,706.0	30.22	228.39	6,394.5	-313.3	-1,483.0	-264.8	12.09
6,737.0	30.73	222.82	6,421.2	-324.3	-1,494.2	-258.8	9.26
6,768.0	32.45	215.01	6,447.7	-336.9	-1,504.3	-250.9	14.31
6,799.0	35.17	208.16	6,473.4	-351.6	-1,513.3	-240.6	15.09
6,830.0	37.74	202.77	6,498.4	-368.2	-1,521.2	-228.2	13.24
6,861.0	39.97	198.98	6,522.5	-386.4	-1,528.1	-213.9	10.51
6,865.0	40.25	198.61	6,525.6	-388.8	-1,529.0	-212.0	9.29
MDLX							
6,892.0	42.19	196.19	6,545.9	-405.8	-1,534.3	-198.2	9.29
6,922.0	45.64	193.90	6,567.5	-425.9	-1,539.7	-181.6	12.66
6,953.0	48.45	189.47	6,588.6	-448.1	-1,544.2	-162.7	13.84
6,984.0	50.86	187.60	6,608.7	-471.5	-1,547.7	-142.4	9.03
7,015.0	52.99	183.09	6,627.8	-495.8	-1,550.0	-120.7	13.35
7,046.0	55.10	183.26	6,646.0	-520.8	-1,551.4	-98.0	6.82
7,069.0	56.60	182.09	6,658.9	-539.8	-1,552.3	-80.7	7.78
BRKT							
7,077.0	57.13	181.69	6,663.3	-546.5	-1,552.5	-74.6	7.78
7,108.0	59.15	180.36	6,679.6	-572.8	-1,553.0	-50.3	7.47

17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	Local Co-ordinate Reference:	Well Deano Unit 2H
Project:	Doddridge County WV	TVD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	MD Reference:	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	North Reference:	Grid
Wellbore:	Original Wellpath	Survey Calculation Method:	Minimum Curvature
Design:	As Drilled	Database:	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
7,122.0	60.07	178.97	6,686.7	-584.9	-1,552.9	-39.1	10.80
TLLY							
7,139.0	61.20	177.31	6,695.1	-599.7	-1,552.4	-25.2	10.80
7,169.0	63.58	174.93	6,709.0	-626.2	-1,550.6	0.1	10.60
7,200.0	65.63	171.23	6,722.3	-654.0	-1,547.2	27.1	12.65
7,231.0	69.47	170.10	6,734.1	-682.3	-1,542.6	55.0	12.84
7,250.0	70.98	169.07	6,740.5	-699.9	-1,539.3	72.6	9.42
MRCL_HOT							
7,261.0	71.85	168.48	6,744.0	-710.1	-1,537.3	82.8	9.42
PRCL							
7,262.0	71.93	168.43	6,744.3	-711.0	-1,537.1	83.7	9.42
7,293.0	74.40	167.43	6,753.3	-740.0	-1,530.9	113.0	8.54
7,320.0	77.30	164.16	6,759.9	-765.4	-1,524.5	138.9	15.91
PRCL_B							
7,324.0	77.73	163.68	6,760.8	-769.2	-1,523.4	142.8	15.91
7,355.0	80.28	160.78	6,766.7	-798.1	-1,514.1	173.1	12.33
7,382.0	82.15	159.52	6,770.8	-823.2	-1,505.1	199.8	8.34
CRVL							
7,386.0	82.43	159.33	6,771.4	-827.0	-1,503.7	203.8	8.34
7,415.0	85.17	159.05	6,774.5	-853.9	-1,493.4	232.6	9.48
LANDING_POINT							
7,416.0	85.26	159.04	6,774.6	-854.8	-1,493.1	233.6	9.48
7,417.0	85.34	159.02	6,774.7	-855.8	-1,492.7	234.6	8.04
CRVL_B							
7,480.0	90.31	158.06	6,777.1	-914.3	-1,469.7	297.5	8.04
7,573.0	90.13	156.83	6,776.7	-1,000.2	-1,434.0	390.5	1.34
7,666.0	87.49	155.33	6,778.6	-1,085.2	-1,396.3	483.4	3.26
7,758.0	88.11	157.62	6,782.2	-1,169.5	-1,359.6	575.3	2.58
7,851.0	88.81	158.06	6,784.7	-1,255.6	-1,324.6	668.3	0.89
7,943.0	90.92	160.08	6,784.9	-1,341.5	-1,291.7	760.2	3.17
8,036.0	90.13	158.76	6,784.0	-1,428.6	-1,259.0	853.2	1.65
8,129.0	90.31	157.97	6,783.7	-1,515.0	-1,224.7	946.2	0.87
8,221.0	89.52	158.41	6,783.8	-1,600.4	-1,190.5	1,038.2	0.98
8,314.0	88.81	157.18	6,785.2	-1,686.5	-1,155.4	1,131.2	1.53
8,406.0	88.72	159.11	6,787.1	-1,771.9	-1,121.2	1,223.2	2.10
8,499.0	89.87	159.90	6,788.3	-1,859.0	-1,088.6	1,316.1	1.50
8,591.0	90.22	158.50	6,788.2	-1,945.0	-1,055.9	1,408.1	1.57
8,684.0	89.43	160.43	6,788.5	-2,032.1	-1,023.3	1,501.1	2.24
8,777.0	88.99	159.20	6,789.8	-2,119.4	-991.2	1,594.0	1.40
8,869.0	88.90	157.97	6,791.5	-2,205.0	-957.6	1,686.0	1.34
8,962.0	89.52	158.23	6,792.8	-2,291.3	-923.0	1,779.0	0.72
9,054.0	89.43	155.51	6,793.6	-2,375.9	-886.8	1,870.9	2.96
9,147.0	88.72	156.92	6,795.1	-2,460.9	-849.3	1,963.9	1.70
9,240.0	89.13	158.64	6,796.8	-2,547.0	-814.2	2,056.9	1.90
9,332.0	89.60	158.67	6,797.9	-2,632.7	-780.7	2,148.9	0.51

17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
9,425.0	89.87	157.79	6,798.3	-2,719.1	-746.2	2,241.8	0.99
9,518.0	89.08	158.85	6,799.1	-2,805.5	-711.8	2,334.8	1.42
9,610.0	89.16	158.67	6,800.6	-2,891.2	-678.5	2,426.8	0.21
9,703.0	89.08	158.32	6,802.0	-2,977.7	-644.4	2,519.8	0.39
9,795.0	88.64	156.74	6,803.8	-3,062.7	-609.3	2,611.8	1.78
9,888.0	88.66	157.80	6,806.0	-3,148.5	-573.3	2,704.7	1.14
9,980.0	89.52	157.97	6,807.5	-3,233.7	-538.7	2,796.7	0.95
10,073.0	88.72	155.07	6,808.9	-3,319.0	-501.7	2,889.7	3.23
10,165.0	87.93	156.12	6,811.6	-3,402.7	-463.7	2,981.6	1.43
10,258.0	88.37	158.67	6,814.6	-3,488.5	-427.9	3,074.5	2.78
10,351.0	90.04	162.45	6,815.9	-3,576.2	-397.0	3,167.4	4.44
10,443.0	89.60	160.87	6,816.2	-3,663.5	-368.1	3,259.2	1.78
10,536.0	89.16	160.17	6,817.2	-3,751.2	-337.0	3,352.1	0.89
10,628.0	88.64	157.97	6,818.9	-3,837.1	-304.2	3,444.1	2.46
10,721.0	89.34	159.20	6,820.6	-3,923.7	-270.2	3,537.0	1.52
10,813.0	88.20	156.12	6,822.6	-4,008.7	-235.3	3,629.0	3.57
10,906.0	88.20	158.06	6,825.5	-4,094.4	-199.1	3,721.9	2.08
11,000.0	88.29	157.44	6,828.4	-4,181.3	-163.5	3,815.9	0.67
11,094.0	89.08	158.06	6,830.5	-4,268.3	-127.9	3,909.9	1.07
11,189.0	90.57	158.85	6,830.8	-4,356.6	-93.1	4,004.9	1.78
11,283.0	90.04	157.00	6,830.3	-4,443.7	-57.7	4,098.8	2.05
11,378.0	88.02	155.60	6,831.9	-4,530.7	-19.6	4,193.8	2.59
11,472.0	88.55	157.35	6,834.7	-4,616.9	17.9	4,287.7	1.94
11,566.0	90.04	158.15	6,835.9	-4,703.9	53.5	4,381.7	1.80
11,660.0	88.64	156.56	6,837.0	-4,790.6	89.7	4,475.7	2.25
11,754.0	89.25	156.83	6,838.7	-4,876.9	126.9	4,569.6	0.71
11,848.0	89.78	159.03	6,839.5	-4,964.0	162.2	4,663.6	2.41
11,943.0	88.99	158.94	6,840.5	-5,052.7	196.3	4,758.6	0.84
12,037.0	89.96	160.17	6,841.4	-5,140.8	229.1	4,852.6	1.67
12,130.0	90.31	160.26	6,841.2	-5,228.3	260.6	4,945.5	0.39
12,222.0	88.46	158.23	6,842.1	-5,314.3	293.2	5,037.5	2.99
12,315.0	89.08	158.41	6,844.1	-5,400.7	327.5	5,130.4	0.69
12,408.0	88.46	155.69	6,846.1	-5,486.3	363.8	5,223.4	3.00
12,500.0	89.43	156.30	6,847.8	-5,570.3	401.2	5,315.3	1.25
12,593.0	89.52	154.72	6,848.7	-5,655.0	439.8	5,408.2	1.70
12,685.0	89.69	156.12	6,849.3	-5,738.6	478.0	5,500.1	1.53
12,778.0	90.13	158.23	6,849.5	-5,824.3	514.1	5,593.1	2.32
12,871.0	91.14	159.30	6,848.4	-5,911.0	547.8	5,686.1	1.58
12,963.0	90.31	158.85	6,847.3	-5,996.9	580.6	5,778.1	1.03
13,056.0	90.22	160.08	6,846.8	-6,084.0	613.3	5,871.0	1.33
13,148.0	88.99	159.82	6,847.5	-6,170.4	644.8	5,963.0	1.37
13,241.0	91.68	162.00	6,846.9	-6,258.3	675.2	6,055.8	3.72
13,333.0	90.22	161.49	6,845.4	-6,345.7	704.0	6,147.6	1.68
13,426.0	90.40	160.70	6,844.9	-6,433.6	734.2	6,240.5	0.87

10/23/2015

17-06498

Antero Resources

EOW Completion Report

Scientific Drilling

Company:	Antero Resources	**Local Co-ordinate Reference:**	Well Deano Unit 2H
Project:	Doddridge County WV	**TVD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Site:	Anne / Hardin Pad	**MD Reference:**	Precision 522 Deano Unit 2H GL 1001' + 18 @ 10
Well:	Deano Unit 2H	**North Reference:**	Grid
Wellbore:	Original Wellpath	**Survey Calculation Method:**	Minimum Curvature
Design:	As Drilled	**Database:**	Oklahoma District

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
13,519.0	93.83	161.66	6,841.5	-6,521.6	764.1	6,333.3	3.83
13,611.0	90.75	158.32	6,837.8	-6,608.0	795.6	6,425.1	4.94
13,704.0	92.07	158.94	6,835.5	-6,694.5	829.5	6,518.1	1.57
13,797.0	90.13	154.98	6,833.7	-6,780.1	865.8	6,611.0	4.74
13,889.0	90.31	154.19	6,833.4	-6,863.2	905.3	6,702.9	0.88
13,982.0	91.36	155.16	6,832.0	-6,947.2	945.1	6,795.7	1.54
14,074.0	92.33	154.89	6,829.0	-7,030.6	983.9	6,887.5	1.09
14,167.0	91.36	156.12	6,826.0	-7,115.2	1,022.5	6,980.4	1.68
14,259.0	91.36	155.77	6,823.9	-7,199.1	1,060.0	7,072.3	0.38
14,352.0	90.57	156.48	6,822.3	-7,284.2	1,097.6	7,165.2	1.14
14,445.0	89.69	158.32	6,822.1	-7,370.0	1,133.3	7,258.2	2.19
14,537.0	90.47	159.11	6,822.0	-7,455.7	1,166.7	7,350.2	1.21
14,630.0	87.85	158.23	6,823.3	-7,542.4	1,200.5	7,443.2	2.97
14,723.0	88.29	157.62	6,826.5	-7,628.5	1,235.5	7,536.1	0.81
14,815.0	88.37	157.53	6,829.1	-7,713.5	1,270.6	7,628.1	0.13
14,908.0	90.13	159.03	6,830.4	-7,799.9	1,305.0	7,721.1	2.49
15,001.0	90.84	158.85	6,829.6	-7,886.7	1,338.4	7,814.1	0.79
15,093.0	89.96	157.62	6,828.9	-7,972.1	1,372.5	7,906.1	1.64
15,186.0	91.28	157.71	6,827.9	-8,058.1	1,407.8	7,999.0	1.42
15,278.0	91.98	157.36	6,825.3	-8,143.1	1,443.0	8,091.0	0.85
15,371.0	90.40	155.42	6,823.4	-8,228.3	1,480.2	8,183.9	2.69
15,391.0	90.31	155.16	6,823.2	-8,246.5	1,488.6	8,203.9	1.38
15,452.0	90.31	155.16	6,822.9	-8,301.8	1,514.2	8,264.8	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
6,652.0	6,348.0	-297.4	-1,460.7	SCMR
6,865.0	6,525.6	-388.8	-1,529.0	MDLX
7,069.0	6,658.9	-539.8	-1,552.3	BRKT
7,122.0	6,686.7	-584.9	-1,552.9	TLLY
7,250.0	6,740.5	-699.9	-1,539.3	MRCL_HOT
7,261.0	6,744.0	-710.1	-1,537.3	PRCL
7,320.0	6,759.9	-765.4	-1,524.5	PRCL_B
7,382.0	6,770.8	-823.2	-1,505.1	CRVL
7,415.0	6,774.5	-853.9	-1,493.4	LANDING_POINT
7,417.0	6,774.7	-855.8	-1,492.7	CRVL_B

Checked By: _____ Approved By: _____ Date: _____

Hydraulic Fracturing Fluid Product Component Information Disclosure

Job Start Date:	12/29/2014
Job End Date:	1/23/2015
State:	West Virginia
County:	Doddridge
API Number:	47-017-06498-00-00
Operator Name:	Antero Resources Corporation
Well Name and Number:	Deano Unit 2H
Longitude:	-80.74881100
Latitude:	39.36062800
Datum:	NAD83
Federal/Tribal Well:	NO
True Vertical Depth:	6,848
Total Base Water Volume (gal):	10,916,850
Total Base Non Water Volume:	0

FracFocus Chemical Disclosure Registry

GROUNDWATER PROTECTION COUNCIL

INTERSTATE Oil & Gas COMPACT COMMISSION

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	ANTERO RESOURCES	Water					
			Water	7732-18-5	100.00000	90.20718	
WV Specific 40/70 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	5.27182	
			Aluminum Oxide	1344-28-1	1.10000	0.05805	
			Iron Oxide	1309-37-1	0.10000	0.00528	
			Titanium Oxide	13463-67-7	0.10000	0.00528	
WV Specific 20/40 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	3.35420	
			Aluminum Oxide	1344-28-1	1.10000	0.03693	
			Titanium Oxide	13463-67-7	0.10000	0.00336	
			Iron Oxide	1309-37-1	0.10000	0.00336	
WV Specific 100 mesh Sand	Nabors Completion and Production Services	Sand - Bulk - West Virginia					
			Crystalline Silica, quartz	14808-60-7	99.90000	0.70493	
			Aluminum Oxide	1344-28-1	1.10000	0.00776	

8494 017-06498

			Iron Oxide	1309-37-1	0.10000	0.00071	
			Titanium Oxide	13463-67-7	0.10000	0.00071	
HCl Acid (12.5-18.0%), 22 Baume	Nabors Completion and Production Services	Bulk Acid					
			Water	7732-18-5	87.50000	0.18220	
			Hydrochloric Acid	7647-01-0	18.00000	0.03748	
LSG-100L	Nabors Completion and Production Services	Gelling Agents					
			Petroleum Distillates	64742-47-8	70.00000	0.09258	
WFR-6W	Nabors Completion and Production Services	Friction Reducer					
			Anionic Water-Soluble Polymer Emulsion	Proprietary	100.00000	0.07365	
AQUCAR DB 20	Nabors Completion and Production Services	Biocides					
			Polyethylene glycol	25322-68-3	54.50000	0.00665	
			2,2-Dibromo-3-nitrilo-propionamide (DBNPA)	10222-01-2	20.00000	0.00244	
			Sodium bromide	7647-15-6	4.00000	0.00049	
			Dibromoacetonitrile	3252-43-5	3.00000	0.00037	
Calcium Chloride (CaCl2)	Nabors Completion and Production Services	Cement Accelerators					
			Calcium Chloride	10043-52-4	100.00000	0.00763	
EXP-F0923-14	Nabors Completion and Production Services	Paraffin & Scale Additives					
			Methanol	67-56-1	30.00000	0.00420	
			Bis(hexamethylene triaminepenta (methylenephosphonic acid))	Proprietary	10.00000	0.00140	
Super GREEN SOLV-M	Nabors Completion and Production Services	Paraffin & Scale Additives					
			Aliphatic Hydrocarbons	Proprietary	95.00000	0.00192	
			Dodecane	Proprietary	14.00000	0.00028	
			tetradecane	Proprietary	11.00000	0.00022	
			Tridecane	Proprietary	9.00000	0.00018	
			Undecane	Proprietary	8.00000	0.00016	
OB-2 LT	Nabors Completion and Production Services	Gel Breakers					
			Ammonium Persulfate	7727-54-0	85.00000	0.00147	
			Crystalline Silica (in the form of quartz)	14808-60-7	10.00000	0.00017	
Acid Inhibitor 2 (AI-2)	Nabors Completion and Production Services	Acid Corrosion Inhibitors					
			Propargyl Alcohol	107-19-7	40.00000	0.00016	

17-06498

			Glycol Ethers	111-46-6	40.00000	0.00016	
			Isopropyl Alcohol	67-63-0	40.00000	0.00016	
			Tar bases, quinoline derivs, benzyl chloride-quaternized	72480-70-7	10.00000	0.00004	
EB-4L	Nabors Completion and Production Services	Gel Breakers					
			Ethylene Glycol	107-21-1	40.00000	0.00017	
Ingredients shown above are subject to 29 CFR 1910.1200(i) and appear on Material Safety Data Sheets (MSDS). Ingredients shown below are Non-MSDS.							
Other Ingredients	Nabors Completion and Production Services	Other Ingredients					
			Copolymer	Proprietary	100.00000	0.07365	
			guar gum	9000-30-0	50.00000	0.06613	
			Water	7732-18-5	40.00000	0.02946	
			Isoparaffinic Solvent	64742-47-8	26.00000	0.01915	
			Water	7732-18-5	85.00000	0.01190	
			Water	7732-18-5	32.00000	0.00391	
			Ethoxylated alcohols	Proprietary	4.00000	0.00295	
			Ethylene Glycol	107-21-1	4.00000	0.00295	
			Crystalline Silica (in the form of quartz)	14808-60-7	2.00000	0.00265	
			Surfactant	68439-51-0	2.00000	0.00265	
			Surfactant Blend	Proprietary	3.00000	0.00221	
			Sugar	57-50-1	100.00000	0.00041	
			Proprietary	Proprietary	100.00000	0.00041	
			Potassium Chloride	7447-40-7	5.00000	0.00038	
			Sodium Chloride	7647-14-5	5.00000	0.00038	
			Alkali Chloride salt	Proprietary	15.00000	0.00026	
			Water	7732-18-5	100.00000	0.00021	
			Water	7732-18-5	48.00000	0.00019	
			Proprietary	Proprietary	100.00000	0.00014	
			Monobromo-3-nitrilopropionamide	1113-55-9	1.00000	0.00012	
			2,2-Dibromomalonamide	73003-80-2	1.00000	0.00012	
			Water	7732-18-5	1.00000	0.00008	
			2-Propenamide as residual	79-06-1	0.10000	0.00007	
			2-Butoxyethanol	111-76-2	13.00000	0.00005	
			Proprietary	Proprietary	10.00000	0.00004	
			Proprietary	Proprietary	1.00000	0.00000	
			Proprietary	Proprietary	0.99000	0.00000	
			Proprietary	Proprietary	1.00000	0.00000	
			Proprietary	Proprietary	1.00000	0.00000	
			Proprietary	Proprietary	1.00000	0.00000	
			Proprietary	Proprietary	0.02000		
			Organophylic Clay	68953-58-2			

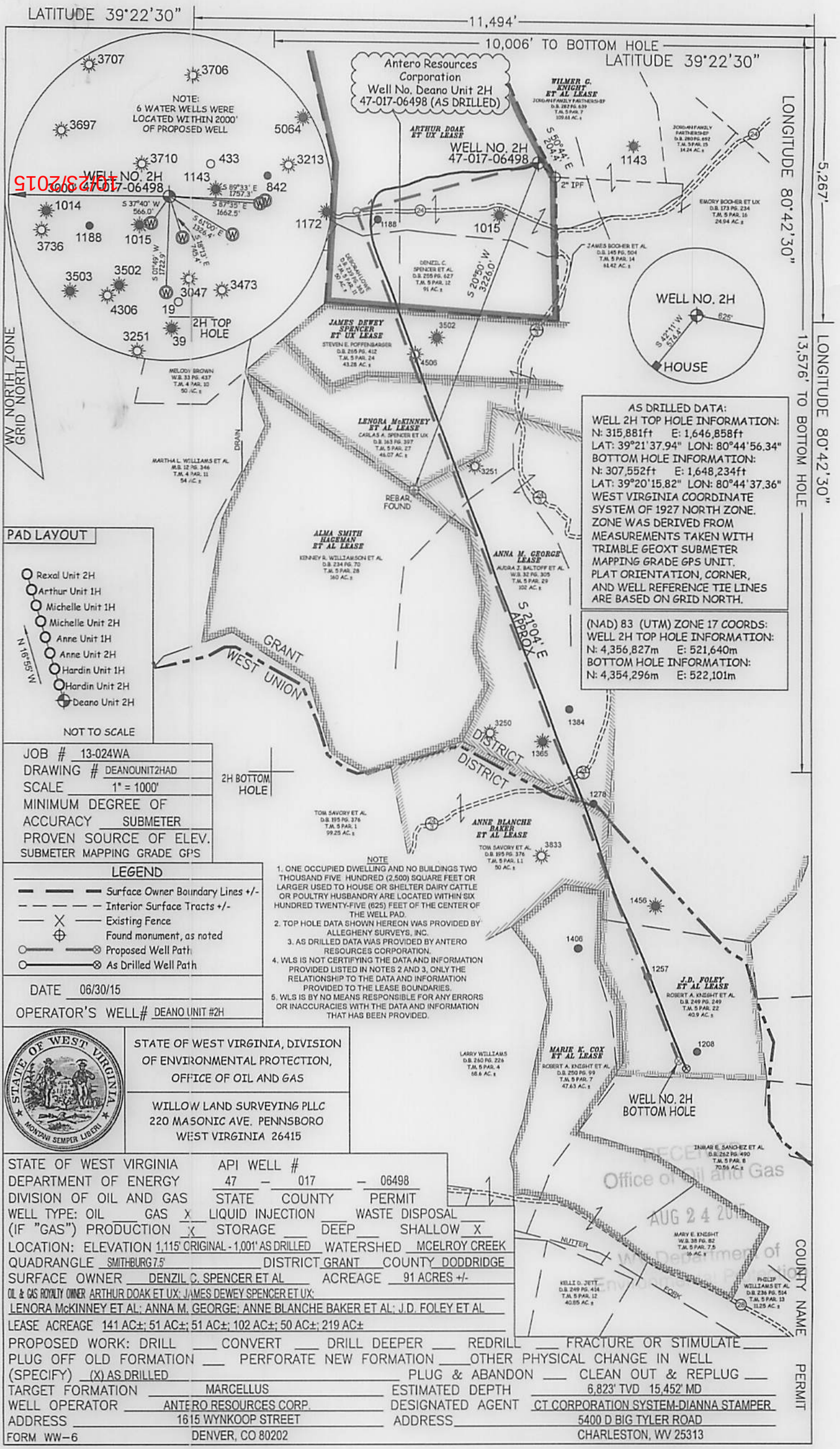
17-0498

17-06498

* Total Water Volume sources may include fresh water, produced water, and/or recycled water
** Information is based on the maximum potential for concentration and thus the total may be over 100%

Note: For Field Development Products (products that begin with FDP), MSDS level only information has been provided. Ingredient information for chemicals subject to 29 CFR 1910.1200(i) and Appendix D are obtained from supplier Material Safety Data Sheets (MSDS)

RECEIVED
Office of Oil and Gas
AUG 24 2015
WV Department of
Environmental Protection


LATITUDE 39°22'30"
11,494'
10,006' TO BOTTOM HOLE
LATITUDE 39°22'30"
LONGITUDE 80°42'30"
5,267'
13,576' TO BOTTOM HOLE
LONGITUDE 80°42'30"
WV NORTH ZONE GRID NORTH
Antero Resources Corporation
Well No. Deano Unit 2H
47-017-06498 (AS DRILLED)
WELL NO. 2H
47-017-06498
2H TOP HOLE
2H BOTTOM HOLE
WELL NO. 2H
BOTTOM HOLE
HOUSE
625'
S 42°11' W 574.4'
NOTE:
6 WATER WELLS WERE LOCATED WITHIN 2000' OF PROPOSED WELL
S 50°44' E 2044'
S 20°50' W 3226.0'
S 21°04' E APPROX
2" IPF
REBAR FOUND
DRAIN
GRANT
WEST UNION
DISTRICT
DISTRICT
WILMER C. KNIGHT ET AL LEASE
ARTHUR DOAK ET UX LEASE
JAMES DEWEY SPENCER ET UX LEASE
LENORA McKINNEY ET AL LEASE
ALMA SMITH HAGEMAN ET AL LEASE
ANNA M. GEORGE LEASE
ANNE BLANCHE BAKER ET AL LEASE
J.D. FOLEY ET AL LEASE
MARIE K. COX ET AL LEASE
DENZIL C. SPENCER ET AL
D.B. 255 PG. 627
T.M. 5 PAR. 12
91 AC.±
JAMES BOOHER ET AL
D.B. 145 PG. 504
T.M. 5 PAR. 14
61.42 AC.±
EMORY BOOHER ET UX
D.B. 173 PG. 234
T.M. 5 PAR. 16
24.94 AC.±
MELODY BROWN
W.B. 33 PG. 437
T.M. 4 PAR. 10
50 AC.±
MARTHA L. WILLIAMS ET AL
M.B. 12 PG. 346
T.M. 4 PAR. 11
54 AC.±
KENNEY R. WILLIAMSON ET AL
D.B. 234 PG. 70
T.M. 5 PAR. 28
160 AC.±
AURA J. BALTOFF ET AL
W.B. 32 PG. 305
T.M. 5 PAR. 29
102 AC.±
TOM SAVORY ET AL
D.B. 195 PG. 376
T.M. 5 PAR. 1
99.25 AC.±
TOM SAVORY ET AL
D.B. 195 PG. 376
T.M. 5 PAR. 1.1
50 AC.±
ROBERT A. KNIGHT ET AL
D.B. 249 PG. 249
T.M. 5 PAR. 22
40.9 AC.±
ROBERT A. KNIGHT ET AL
D.B. 250 PG. 99
T.M. 5 PAR. 7
47.63 AC.±
LARRY WILLIAMS
D.B. 260 PG. 226
T.M. 5 PAR. 4
58.6 AC.±
INMAR E. SANCHEZ ET AL
D.B. 262 PG. 490
T.M. 5 PAR. 8
70.56 AC.±
MARY E. KNIGHT
W.B. 38 PG. 82
T.M. 5 PAR. 7.5
16 AC.±
KELLI D. JETT
D.B. 249 PG. 414
T.M. 5 PAR. 12
40.85 AC.±
PHILIP WILLIAMS ET AL
D.B. 236 PG. 514
T.M. 5 PAR. 13
11.25 AC.±
NUTTER
FOSTER
3707
3706
3697
5064
3710
433
3213
1143
842
1014
1188
1015
1172
3736
3503
3502
3473
3047
4306
19
3251
39
1384
1365
3250
1278
3833
1456
1406
1257
1208
AS DRILLED DATA:
WELL 2H TOP HOLE INFORMATION:
N: 315,881ft E: 1,646,858ft
LAT: 39°21'37.94" LON: 80°44'56.34"
BOTTOM HOLE INFORMATION:
N: 307,552ft E: 1,648,234ft
LAT: 39°20'15.82" LON: 80°44'37.36"
WEST VIRGINIA COORDINATE SYSTEM OF 1927 NORTH ZONE.
ZONE WAS DERIVED FROM MEASUREMENTS TAKEN WITH TRIMBLE GEOXT SUBMETER MAPPING GRADE GPS UNIT.
PLAT ORIENTATION, CORNER, AND WELL REFERENCE TIE LINES ARE BASED ON GRID NORTH.
(NAD) 83 (UTM) ZONE 17 COORDS:
WELL 2H TOP HOLE INFORMATION:
N: 4,356,827m E: 521,640m
BOTTOM HOLE INFORMATION:
N: 4,354,296m E: 522,101m
PAD LAYOUT
Rexal Unit 2H
Arthur Unit 1H
Michelle Unit 1H
Michelle Unit 2H
Anne Unit 1H
Anne Unit 2H
Hardin Unit 1H
Hardin Unit 2H
Deano Unit 2H
N 16°55' W
NOT TO SCALE
JOB # 13-024WA
DRAWING # DEANOUNIT2HAD
SCALE 1" = 1000'
MINIMUM DEGREE OF ACCURACY SUBMETER
PROVEN SOURCE OF ELEV. SUBMETER MAPPING GRADE GPS
LEGEND
Surface Owner Boundary Lines +/-
Interior Surface Tracts +/-
Existing Fence
Found monument, as noted
Proposed Well Path
As Drilled Well Path
DATE 06/30/15
OPERATOR'S WELL# DEANO UNIT #2H
NOTE
1. ONE OCCUPIED DWELLING AND NO BUILDINGS TWO THOUSAND FIVE HUNDRED (2,500) SQUARE FEET OR LARGER USED TO HOUSE OR SHELTER DAIRY CATTLE OR POULTRY HUSBANDRY ARE LOCATED WITHIN SIX HUNDRED TWENTY-FIVE (625) FEET OF THE CENTER OF THE WELL PAD.
2. TOP HOLE DATA SHOWN HEREON WAS PROVIDED BY ALLEGHENY SURVEYS, INC.
3. AS DRILLED DATA WAS PROVIDED BY ANTERO RESOURCES CORPORATION.
4. WLS IS NOT CERTIFYING THE DATA AND INFORMATION PROVIDED LISTED IN NOTES 2 AND 3, ONLY THE RELATIONSHIP TO THE DATA AND INFORMATION PROVIDED TO THE LEASE BOUNDARIES.
5. WLS IS BY NO MEANS RESPONSIBLE FOR ANY ERRORS OR INACCURACIES WITH THE DATA AND INFORMATION THAT HAS BEEN PROVIDED.
STATE OF WEST VIRGINIA, DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS
WILLOW LAND SURVEYING PLLC
220 MASONIC AVE. PENNSBORO
WEST VIRGINIA 26415
STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS
API WELL # 47 – 017 – 06498
STATE COUNTY PERMIT
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
(IF "GAS") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
LOCATION: ELEVATION 1,115' ORIGINAL - 1,001' AS DRILLED WATERSHED MCELROY CREEK
QUADRANGLE SMITHBURG 7.5' DISTRICT GRANT COUNTY DODDRIDGE
SURFACE OWNER DENZIL C. SPENCER ET AL ACREAGE 91 ACRES +/-
OIL & GAS ROYALTY OWNER ARTHUR DOAK ET UX; JAMES DEWEY SPENCER ET UX; LENORA McKINNEY ET AL; ANNA M. GEORGE; ANNE BLANCHE BAKER ET AL; J.D. FOLEY ET AL
LEASE ACREAGE 141 AC±; 51 AC±; 51 AC±; 102 AC±; 50 AC±; 219 AC±
PROPOSED WORK: DRILL ___ CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE ___
PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) (X) AS DRILLED PLUG & ABANDON ___ CLEAN OUT & REPLUG ___
TARGET FORMATION MARCELLUS ESTIMATED DEPTH 6,823' TVD 15,452' MD
WELL OPERATOR ANTERO RESOURCES CORP. DESIGNATED AGENT CT CORPORATION SYSTEM-DIANNA STAMPER
ADDRESS 1615 WYNKOOP STREET ADDRESS 5400 D BIG TYLER ROAD
DENVER, CO 80202 CHARLESTON, WV 25313
FORM WW-6
COUNTY NAME PERMIT
RECEIVED
Office of Oil and Gas
AUG 24 2015
WV Department of Environmental Protection
10/23/2015